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FEDERAL COMMUNICATIONS COMMISSION
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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 25 of the Commission's Rules to Establish Rules and Policies Pertaining to the Second Processing Round of the Non-Voice, Non-Geostationary Mobile Satellite Service	)	IB Docket No. 96-220

To: The Commission

RESPONSE OF FINAL ANALYSIS COMMUNICATION SERVICES, INC.

Request for Leave to File Pleading

Pursuant to Sections 1.45 and 1.415 of the Commission's Rules, 47 C.F.R. §§ 1.45 and 1.415, Final Analysis Communication Services, Inc. ("Final Analysis"), by its attorneys, respectfully requests leave to file this additional pleading in the above captioned proceeding to provide a limited response to new technical information concerning its proposed system that has been placed in the record.

Specifically, in its Reply filed in this proceeding on January 13, 1997, Leo One USA Corporation ("Leo One USA") submitted a technical study which purports to be an analysis of Final Analysis's proposed Non-Voice Non-Geostationary Mobile Satellite Service ("NVNG MSS") system. As Final Analysis's interests in this proceeding will be directly prejudiced if Leo One USA's contentions are accepted, the public interest requires acceptance of this Response. Acceptance will not prejudice other parties as the issue raised concerns only Final Analysis.

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New Technical Information Filed Concerning Final Analysis is Misleading

In its Reply, Leo One USA has submitted, in Appendix D, a study prepared for it by Autometric, Inc.[1] and, in Appendix C, an interpretation of that study purporting to show that Final Analysis's proposed constellation could be implemented with virtual 100% availability of its "design goal"[2] while time sharing with NOAA MetSats in the 137-138 MHz bands ("NOAA bands").[3] Final Analysis files this Response with the sole purpose of clarifying that Leo One USA's analysis does not model or represent Final Analysis's proposed system, and further that Final Analysis disputes Leo One USA's technical assumptions, which also are not consistent with the input provided by the Commission.[4] Consequently, the results are totally irrelevant to any consideration of assignment of frequencies to Final Analysis.

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[1] Autometric, Inc. is the same entity that prepared the Satellite Interference Study presented as Attachment A to Exhibit 2 of Final Analysis's December 20, 1996 Comments. As clarified in the attached letter by Autometric, when input assumptions are clarified, the studies prepared by Autometric for Final Analysis and Leo One USA are not inconsistent and correctly show that significant outages would occur under the parameters specified in the Commission's proposal.

[2] Leo One USA's use of this undefined term is misleading. Final Analysis's "design goal" is to achieve as much availability as possible within the time sharing requirements that ultimately are decided in this proceeding. As there are too many variables still outstanding, Final Analysis's ultimate "design goal," as it relates to percentage of outage times, has not yet been, and cannot be, determined until the final band plan specifics and coordination criteria have been decided. Thus, no particular quantitative values can be presumed by Leo One USA. Instead, the Commission should focus on more objective factors, such as the outage calculations presented in Final Analysis's Comments.

[3] These downlink bands correspond to those in Leo One USA's proposed "System B."

[4] Final Analysis's primary concern, as discussed in detail below, is assumption underlying Leo One USA's analysis that user terminals will be designed with frequency agile receivers. Other technical assumptions include the fact that Leo One USA has directed Autometric to use a 5 degree rather than 0 degree elevation mask angle. Final Analysis has previously said that 5 degrees is preferable but is not the technical parameter proposed by the Commission in this proceeding. See Final Analysis Reply at 17.

Leo One states in Appendix C, p. 1, that the Autometric study submitted by Final Analysis was performed "without consideration of means for avoiding service outages when time sharing with NOAA satellites;" and further that "[c]onsiderable improvement in availability of service is achieved with the incorporation of frequency hopping." Autometric, in its report attached to Leo One USA's Reply, confirms that the "study assumes that NVNG satellites have the ability to switch to the opposite MetSat-band/channel whenever NVNG satellite footprints overlap that of a MetSat footprint."[5] As further clarified in the letter from Autometric attached to this Response, the study also necessarily assumes that such frequency hopping capability is included in user terminal receivers as well as in the satellites.

The use of such a frequency hopping approach in the receiver portion of the user terminal is a strategy that has been espoused only by Leo One USA. Indeed, it is an approach that Final Analysis expressly has stated that it will not use.[6] Final Analysis believes that the approach is seriously flawed from both a technical and business standpoint. It would have a serious deleterious impact on the cost of user terminals and the marketability of NVNG MSS services. In short, the analysis submitted by Leo One USA proves nothing with respect to Final Analysis.

It is extremely curious that Leo One USA should expend so much effort to defend the potential of sharing in the NOAA bands, using its own technical and business plan

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[5] Leo One USA Reply, Appendix D, p. 1.

[6] Final Analysis's satellites are designed for frequency agility, but the terminals are designed as simply as possible, to operate on only one receive frequency, to maximize the affordability and reliability of the service. This is most consistent with widely accepted market analyses as well as principles espoused at the 1996 International Telecommunications Union World Telecommunications Policy Forum on Global Mobile Personal Communications by Satellite that recognize that it is critical that NVNG MSS services remain as affordable as possible.

assumptions, to prove a level of availability for Final Analysis, which does not share those technical and business assumptions. At best, Leo One USA's analysis proves only that Leo One USA assumes that its approach to time sharing maximizes availability of these bands. It follows that the public interest would best be served by assignment of these NOAA bands to Leo One USA.

Conclusion

Leo One USA has made clear that it is looking to the Commission for a resolution of this proceeding on the record.[7] Final Analysis submits that the contributions to the record made by Leo One USA can be viewed as support only for its own proposed system design and business plan, and certainly not that of Final Analysis. Leo One USA's Reply only further bolsters the evidence that, under the band segment and sharing plan Final Analysis suggested in its Reply, Leo One USA should be assigned to System B.

Respectfully submitted,

FINAL ANALYSIS COMMUNICATION SERVICES, INC.

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January 16, 1997

[7] In footnote 121 of its Reply, Leo One USA indicates that it has abandoned efforts to achieve an industry solution.

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15 January, 1997

Mr. Nader Modanlo
Final Analysis, Inc.
9701-E Philadelphia Ct.
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Dear Mr. Modanlo,

The following is submitted in response to your questions regarding NOAA interference studies conducted by Autometric, Inc., as tasked by various organizations in response to the FCC Notice of Proposed Rule Making (FCC 96-426).

Any technical studies undertaken by Autometric are conducted strictly in accordance with input parameters and assumptions as specified by our customers. These can affect the study results and conclusions, which is why all analyses begin with clearly stated assumptions and methodologies. Study inputs and assumptions used are the responsibility of individual customers and may or may not reflect individual end-to-end satellite system considerations such as user ground system capabilities, affordability, or marketing considerations.

For example, at the direction of Final Analysis Inc., the TYPSAT constellation used in the November 15, 1996 study was notional and not descriptive of any specific constellation proposed to the FCC, and was not used by Autometric in any other studies. The assumptions used in this study were:

1. Interference was considered possible anytime the zero-degree elevation angle footprints of the TYPSAT satellites intersected with the five NOAA satellites.
2. The analysis was performed over 4 twenty-four periods for better averaging.
3. All NOAA satellite ephemeris was notional in nature. The inclination for the five satellites used in this study was Sun synchronous and had ascending times that were one hour apart between individual satellites.

In an Autometric study commissioned by another customer, the FACS constellation was modeled based on information contained in the current Final Analysis FCC filing. *Note: this study included an assumption of a satellite frequency shifting capability. This study did not reflect individual end-to-end satellite system considerations such as user ground system capabilities, affordability, or marketing considerations, i.e. whether or not Final Analysis was considering the implementation of multiple frequency users terminals. Satellites transmitting in multiple frequencies require user terminals that are able to receive in multiple frequencies. Such considerations could result in significant differences in downlink availability without interference.*

Autometric remains committed to providing Final Analysis and all customers with high fidelity study results, based on customer inputs and publicly available information. Autometric's approach to these studies is one of an honest broker. Since Autometric conducts studies for a variety of customers with different requirements, we do not make value judgments about entering assumptions provided by the customer, unless there is an obvious technical error or contradiction.

Respectfully,

Frank Stampf

Frank Stampf
General Manager
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Applications Division

CERTIFICATE OF SERVICE

I, Wanda Borrero-Turner, a legal secretary at Kelley Drye & Warren LLP, hereby certify that on this 16th day of January 1997, true copies of the foregoing " Response of Final Analysis Communications Services, Inc. " have been sent via first-class U.S. mail, postage prepaid, or hand delivered as indicated to:

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